#### INDONESIAN JOURNAL OF EDUCATIONAL RESEARCH AND REVIEW

Volume 6 Nomor 2 2023, pp 466-478 E-ISSN: 2621-8984; P-ISSN: 2621-4792 DOI:https://doi.org/10.23887/ijerr.v6i2.66319



# The Effect of Visual Auditory, Kinesthetic Learning Styles on Students' Learning Interest at Christian Junior High School

Nani Setiawati<sup>1</sup>, Susmita Irene<sup>2</sup>, Orbit Thomas<sup>3</sup>, Rinto Alexandro<sup>4\*</sup>, Kharisma Nugraha Putra<sup>5</sup>

1.2,3,4,5 Universitas Palangka Raya, Palangka Raya, Indonesia \*Corresponding author: rinto.alexandro@fkip.upr.ac.id

#### Abstrak

Masalah yang sering dijumpai pada siswa adalah kesulitan siswa dalam menerima materi pelajaran yang dipengaruhi oleh gaya belajar yang dimiliki siswa. Gaya belajar siswa mendorong siswa untuk memperoleh minat dan hasil belajar yang lebih baik. Penelitian ini bertujuan untuk menganalisis pengaruh gaya belajar visual, auditori, dan kinestetik terhadap minat belajar siswa SMP Kristen. Jenis penelitian ini adalah penelitian kuantitatif. Sampel dalam penelitian ini adalah seluruh siswa SMP Kristen kelas VII dan VIII yang berjumlah 61 siswa. Metode pengumpulan data adalah survei dengan menggunakan kuesioner. Data dianalisis menggunakan analisis regresi linier berganda dengan menggunakan software SPSS 20. Hasil penelitian menunjukkan bahwa gaya belajar visual, auditori, dan kinestetik berpengaruh terhadap minat belajar siswa di SMP Kristen. Selain itu, hasil penelitian juga menemukan bahwa gaya belajar kinestetik merupakan gaya belajar siswa yang paling berpengaruh signifikan terhadap minat belajar siswa sebesar 84,3%. Kesimpulannya, temuan penelitian menunjukkan bahwa minat belajar siswa dipengaruhi secara signifikan oleh gaya belajar mereka. Individu yang terbiasa dengan gaya belajar mereka dapat mengambil langkah penting untuk belajar lebih cepat dan lebih mudah, menghasilkan hasil belajar yang diinginkan.

Kata kunci: Gaya Belajar, Visual, Auditorial, Kinestetik, Minat Belajar

#### **Abstract**

The problem that is often found in students is the difficulty of students in accepting subject matter which is effected by the learning style that students have. Student learning styles encourage students to gain interest and better learning outcomes. This study aimed to analyze the effect of visual, auditory, and kinesthetic learning styles on the learning interest of Christian Junior School students. This type of research was quantitative research. The sample in this study comprised all students of Christian Junior High School from grades VII and VIII, totaling 61 students. The data collection method was a survey using a questionnaire. Data were analyzed using multiple linear regression analysis using SPSS 20 software. The results showed that the visual, auditory, and kinesthetic learning styles had an effect on students' interest in learning at Christian Junior High School. In addition, the results of the study also found that kinesthetic learning style was a student learning style that had the most significant effect on student learning interest at 84,3%. In conclusion, the research findings indicate that students' learning interest is significantly affected by their learning styles. Individuals who are familiar with their learning styles can take essential steps to learn faster and more easily, resulting in desired learning outcomes.

Keywords: Learning Styles, Visual, Auditory, Kinesthetic, Learning Interest

History:
Received: March 10, 2023
Revised: March 12, 2023
Accepted: July 06, 2023
Published: July 25, 2023

Publisher: Undiksha Press
Licensed: This work is licensed under
a Creative Commons Attribution 4.0 License

#### 1. INTRODUCTION

National education functions to develop capabilities and shape the character and civilization of the nation to enhance the intelligence and dignity of the nation's life. Its purpose is to develop students' potential to become individuals who have faith and devotion to the One Supreme God, possess noble character, are healthy, knowledgeable, competent, creative, independent, and become democratic and responsible citizens (Dewi & Alam, 2020; Taufan, 2022). Education is a conscious and planned effort to create a conducive learning atmosphere and learning process according to students' interests and talents. Therefore students actively develop their potential and aspirations (Ernawati et al., 2021; Rands et al., 2021). Teachers are figures of leaders who have the opportunity to shape and build the personality, skills, attitudes, and good behaviours of their students.

To achieve this, a teacher must always strive to present interesting lessons and provide motivation and learning guidance to students so that they can develop their learning potential and creativity through the teaching and learning process. Learning can affect the process of thinking skills and behavioral changes (Ramdan & Fauziah, 2019; Sumarsono & Firanti, 2021). A teacher should also be able to understand how students learn. If teacher mastered techniques it can enhance the enthusiasm and activeness of their students in learning, the field of education will become more mature and professional. Optimal learning can create a pleasant learning atmosphere and bring about behavioral changes (Azmi, 2015; Londa, 2018). Previous study explain that when someone is familiar with their learning style, they can take important steps within themselves to learn faster and easier, thus achieving the desired learning outcomes (Porter & Hernacki, 2016).

The observation results conducted at Palangka Raya Christian Junior High School showed that students lacked focus during the learning process. Most of them remained quiet and hesitated to ask questions when they did not understand the presented material. Many students did not respond actively to the teacher's explanations during lessons as they found the subject matter uninteresting, and they perceived all the taught lessons as difficult. Therefore, it was advisable to use simple language and incorporate visual representations in teaching materials. Some students preferred talking to themselves while working on assignments and enjoyed storytelling rather than completing tasks in written form. Additionally, some students could not stay still for a long time to listen to the teacher's explanations, and they ended up disrupting their peers or playing alone. Furthermore, many students did not understand their own learning styles, and teachers also did not comprehend the learning styles of their students, leading to suboptimal learning experiences. Moreover, most teachers only explained the material without actively involving students in the learning process, lacking innovation in using different teaching models or methods. As a result, students lost interest in learning during classroom sessions, and the learning process became one-directional without receiving feedback from the students.

The issue mentioned above was one of the effects of the learning styles used in the learning process, which affected students' learning interests. One factor contributing to students' low learning motivation or learning outcomes is the continued use of conventional teaching models, where teachers tend to overlook students' abilities to absorb the material (Lai et al., 2021; Sudimahayasa, 2015; Uddiniyah & Silfia, 2019). In the learning process, a specific approach is needed to support the achievement of learning objectives. An educator must be aware of learning styles to facilitate effective teaching strategies (Manuaba & Putra, 2021; Sumarsono & Firanti, 2021). Learning styles are a combination of how students absorb, organize, and process information. They involve not only aspects related to encountering information through seeing, hearing, writing, and speaking but also the sequential, analytical, global, or left-brain right-brain processing of information, as well as how individuals respond to their learning environment (by abstract or concrete means). Previous study explains that there are three types of learning styles based on the modalities individuals use to process information: visual, auditory, and kinesthetic learning (Anggrawan, 2019; Ritonga & Rahma, 2021; Walet, 2011).

Visual learning style involves students learning by looking, observing, and analyzing through reading materials such as diagrams, charts, graphs, and tables. The auditory learning style, on the other hand, is when students maximize the use of their sense of hearing (ears) in the process of capturing and absorbing information. Meanwhile, the kinesthetic learning style is characterized by students continuously using and leveraging their body movements in the learning process or in their efforts to comprehend something (Putri Ningrat et al., 2018; Suparman, 2016). Previous study explains that out of every 30 students, 22 of them, on average, can learn effectively when their teacher presents learning activities that combine

visual, auditory, and kinesthetic approaches (Nurmayani et al., 2016). However, the remaining students have a strong preference for one teaching method over the other two, so they must make extra effort to understand the lessons if the material is not presented in the way they prefer (Baker et al., 2020; Yeo, 2021). If a child grasps information or material according to their learning style, there will be no difficult subjects. Information absorption depends on how individuals make an effort to learn (Chetty et al., 2019; Hartanto, 2016). There will be no difficult subjects if each student can understand the information or material given according to their learning style.

The implementation of a suitable learning model can encourage the growth of joy and learning interest within students. Interest is a feeling of preference and attachment to something or an activity, based on one's own will or without being prompted by others. Interest is essentially an acceptance of a relationship between oneself and something external (Commodari & La Rosa, 2021; Takenaka & Soga, 2019). Previous study explains that learning interest is a feeling of preference and attraction towards something or an activity, without being prompted by others (Sriklaub & Wongwanich, 2014). When someone has an interest in something, they will show a high level of interest by continuously paying attention to it, accompanied by feelings of joy, leading to satisfaction. This joy is evident in a higher level of focus on that particular thing, allowing the individual to be more diligent in learning it. Previous study explains that interest is related to a motion style that drives someone to interact with people, objects, activities, or experiences stimulated by those activities themselves (Djaali, 2013).

Research related to the visual, auditory, and kinaesthetic (VAK) learning styles has been conducted by several researchers before, including a study analysing the VAK learning styles in online learning and their effect on students' learning interest (Chetty et al., 2019). The research found that there is an effect of VAK learning styles on students' learning interest. Other study also conducted research and found that there is a simultaneous and partial effect between the visual, auditory, and kinesthetic learning styles on students' academic achievement (Bire et al., 2014). In addition, research conducted found an effect of the visual, auditory, and kinesthetic (VAK) learning styles on students' learning outcomes (Nurmayani et al., 2016). This study was a replication of a previous study conducted by Ritonga & Rahma (Ritonga & Rahma, 2021). The research aimed to examine the effect of students' learning styles, consisting of visual, auditory, and kinesthetic (VAK) learning styles, on the learning interest of students at Palangka Raya Christian Junior High School. The difference between this research and the previous one lies in the teaching model used. The previous research used online learning, while this study employed face-to-face learning methods after the COVID-19 pandemic. Additionally, another difference is the subject of study. In this research, the subjects were students at Palangka Raya Christian Junior High School, who may have different characteristics compared to the subjects in the previous study.

This research aimed to determine the effect of the visual, auditory, and kinesthetic (VAK) learning styles on students' learning interest at Palangka Raya Christian Junior High School. Additionally, the study aimed to identify which learning style had the most significant effect on students' learning interest at Palangka Raya Christian Junior High School. The theoretical significance of this research lies in deepening and expanding the knowledge related to students' learning styles and learning interest. On a practical level, the research's benefits were providing input for making appropriate policies to enhance the school's quality, thereby improving the overall quality of education, especially in the classroom setting. Moreover, the research findings served as valuable data on the differences in students' learning styles, allowing for the provision of facilities that catered to individual students' specific learning styles.

#### 2. METHODS

The type of research used in this study was quantitative research. Quantitative research is a method based on positivism philosophy, used to investigate specific populations or samples (Sugiyono., 2014). Sampling techniques were generally conducted randomly, data collection involved using research instruments, and data analysis was quantitative or statistical with the aim of testing predetermined hypotheses. The researcher chose the quantitative approach to determine the existence of a relationship between the visual, auditory, and kinesthetic learning styles and students' learning interest at Palangka Raya Christian Junior High School.

The population of this study was all students in grades 7 and 8 at Palangka Raya Christian Junior High School, totaling 61 students. The sampling method used in this research was a saturated sampling method. Saturated sampling is a sampling technique where all members of the population are used as samples. The saturated sampling method was chosen, referring to previous study who stated that when the research subjects are fewer than 100, it is better to include all of them in the study (Arikunto, 2012). Therefore, the sample in this research consisted of 61 students from grades 7 and 8 at Palangka Raya Christian Junior High School.

The type of data used in this research was primary data. The data collection method employed in this study was a survey using a questionnaire as the research instrument. The questionnaire contained responses to statements related to students' learning interest, visual learning style, auditory learning style, and kinesthetic learning style, measured on a five-point Likert scale. The answers to each instrument had gradations from very positive to very negative, expressed through words such as: Always, Often, Sometimes, Rarely, and Never. The response format indicated a range of scores from the lowest score of 1, indicating "never," to the highest score of 5, indicating "always".

The data analysis in this research used multiple linear regression analysis to examine the effect of visual learning style, auditory learning style, and kinesthetic learning style on students' learning interest at Palangka Raya Christian Junior High School. The analysis was conducted using the IBM SPSS 20 software with a significance level of 5% (0.05). Before hypothesis testing, the researcher first conducted data quality tests, namely data validity and reliability.

# 3. RESULTS AND DISCUSSION

#### **Results**

### Validity and Reliability Test of Data

Before conducting hypothesis testing, this research first performed validity and reliability tests on the data. The validity and reliability testing is a process of testing the items in a questionnaire to determine whether the items are valid and reliable. A questionnaire item is considered valid if the r-value is greater than or equal to the critical r-table value. The items used in data collection are valid items. The result of the validity test is show in Table 1.

Table 1. Table of Validity Test Results for Research Variables

Variable	Item No.	r-value	r-table Value	Decision
Visual Learning Style	e 1	0.654	0.514	Valid
	2	0.556	0.514	Valid
	3	0.632	0.514	Valid
	4	0.735	0.514	Valid
	5	0.624	0.514	Valid

Variable	Item No.	r-value	r-table Value	Decision
	6	0.636	0.514	Valid
	7	0.628	0.514	Valid
	8	0.641	0.514	Valid
	9	0.533	0.514	Valid
	10	0.787	0.514	Valid
	11	0.598	0.514	Valid
	12	0.714	0.514	Valid
	13	0.590	0.514	Valid
Auditory Learning	1	0.540	0.514	Valid
Style	2	0.628	0.514	Valid
~ · · j - ·	3	0.684	0.514	Valid
	4	0.574	0,514	Valid
	5	0.662	0.514	Valid
	6	0.760	0.514	Valid
	7	0.650	0.514	Valid
	8	0.549	0.514	Valid
	9	0.703	0.514	Valid
	10	0.569	0.514	Valid
	11	0.716	0.514	Valid
	12	0.702	0.514	Valid
	13	0.545	0.514	Valid
	14	0.651	0.514	Valid
Kinesthetic Learning		0.876	0.514	Valid
Style	2	0.558	0.514	Valid
Style	3	0.671	0.514	Valid
	4	0.744	0.514	Valid
	5	0.605	0.514	Valid
	6	0.652	0.514	Valid
	7	0.690	0.514	Valid
	8	0.645	0.514	Valid
	9	0.613	0.514	Valid
	10	0.876	0.514	Valid
	11	0.706	0.514	Valid
	12	0.690	0.514	Valid
	13	0.662	0.514	Valid
	14	0.583	0.514	Valid
	15	0.661	0.514	Valid
Learning Interest	13	0.830	0.514	Valid
Louining interest	2	0.705	0.514	Valid
	3	0.654	0.514	Valid
	4	0.664	0.514	Valid
	5	0.734	0.514	Valid
	6	0.760	0.514	Valid Valid
	7	0.563	0.514	Valid
	8	0.818	0.514	Valid
	9	0.743	0.514	Valid
	10	0.830	0.514	Valid
	11	0.562	0.514	Valid
	12	0.850	0.514	Valid
	14	0.030	0.514	v anu

Variable	Item No.	r-value	r-table Value	Decision
	13	0.773	0.514	Valid
	14	0.656	0.514	Valid
	15	0.677	0.514	Valid
	16	0.654	0.514	Valid
	17	0.694	0.514	Valid
	18	0.563	0.514	Valid
	19	0.850	0.514	Valid
	20	0.556	0.514	Valid

Based on Table 1, it was shown that the calculated r-values for all items of the research variables were higher than the r-table values. Therefore, it could be concluded that all the questionnaire items used in this study were valid. Next, after conducting the validity test, the reliability test was performed. The research instrument could be considered reliable as it had a Cronbach's alpha value equal to or above 0,6. The results of the reliability test for all research variables is show in Table 2.

**Table 2.** The Results Of The Reliability Test For Each Research Variable

No.	Variable	Cronbach Alpha	Value of r-table	Decision
1	Visual Learning Style	0,876	0,514	Reliabel
2	Auditory Learning Style	0,882	0,514	Reliabel
3	Kinesthetic Learning Style	0,914	0,514	Reliabel
4	Learning Interest	0,947	0,514	Reliabel

Based on Table 2, it was shown that the Cronbach's alpha for all research variables was 0.6. Therefore, it could be concluded that all the indicators and questions used in this study were reliable and suitable for use as instruments in the research. The Cronbach's alpha value indicated a high level of internal consistency among the items within each variable, which enhanced the overall reliability of the research instrument.

# Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to examine the effect of two or more independent variables (explanatory) on one dependent variable. In this study, the dependent variable was the learning interest, while the independent variables were the visual learning style, auditory learning style, and kinesthetic learning style. Furthermore, to support the hypotheses in this research, the coefficient of determination and t-statistic tests were used.

Statistical calculations in the multiple linear regression analysis for this research were conducted using IBM SPSS 20 software. Table 3 presented the research findings and the output from the SPSS 20 program.

**Table 3.** Multiple Linear Regression Analysis

Independent Variables	В	T	Sig.
Visual Learning Style	0.677	2.968	0.008
Auditory Learning Style	0.472	3.211	0.005
Kinesthetic Learning Style	1.024	10.111	0.000

Based on Table 3 show the multiple linear regression equation results, the regression coefficient for the visual learning style was 0.677. This means that if the proportion of visual learning style increased by 1%, it would have increased the learning interest by 0.677. The

regression coefficient for the auditory learning style was 0.472. This means that if the proportion of auditory learning style increased by 1%, it would have increased the learning interest by 0.472. The regression coefficient for the kinesthetic learning style was 1.024. This means that if the proportion of kinesthetic learning style increased by 1%, it would have increased the learning interest by 1.024.

# **Determination Coefficient Test**

The coefficient of determination measures how well the model can explain the variation in the dependent variable. A small R-square value indicates that the ability of the independent variables to explain the variation in the dependent variable is limited, while an R-square value approaching one means that the independent variables provide almost all the information needed to predict the variation in the dependent variable. In this research, to determine which learning style has the highest effect on students' learning interest, the coefficient of determination test was conducted for each variable as show in Table 4.

**Table 4.** Table of Determination Coefficient Test Results

Independent Variable	R	R Square	Adjsuted R Square	Std. Error of the Estimate
Visual Learning Style	0.573	0.329	0.291	5.03342
Auditory Learning Style	0.603	0.364	0.329	3.39622
Kinesthetic Learning Style	0.918	0.843	0.835	2.44372

Based on Table 4, the extent of the effect of each learning style can be explained in more detail the effect of the visual learning style can be seen from the R2 value, which was 0.329 or 32.9%. Thus, the visual learning style had a 32.9% effect on the learning interest of students at Palangka Raya Christian Junior High School, while the remaining 67.1% was affected by other factors not studied in this research. The effect of the auditory learning style can be seen from the R2 value, which was 0.364 or 36.4%. Thus, the auditory learning style had a 36.4% effect on the learning interest of students at Palangka Raya Christian Junior High School, while the remaining 63.6% was affected by other factors not studied in this research. The effect of the kinesthetic learning style can be seen from the R2 value, which was 0.843 or 84.3%. Thus, the kinesthetic learning style had an 84.3% effect on the learning interest of students at Palangka Raya Christian Junior School, while the remaining 15.7% was effected by other factors not studied in this research.

# Hypothesis Test (t-Test)

The hypothesis testing was conducted to examine the significance of the effect of the independent variable, which was the visual learning style, on the learning interest of students at Palangka Raya Christian Junior High School. This testing used the t-test with the rule that Ha was accepted if the p-value < 0,05 or if the calculated t-value (t-test) > the critical t-value (t-table). The results of the hypothesis testing for this research were show in Table 5.

**Table 5.** Table of T-Test Results

Independent Variable	В	T	Sig.	<b>Testing Result</b>
Visual Learning Style	0.677	2.968	0.008	Accepted
Auditory Learning Style	0.472	3.211	0.005	Accepted
Kinesthetic Learning Style	1.024	10.111	0.000	Accepted

Based on the t statistical test as show in Table 5, it can be explained in more detail the effect of each variable as follows: The first hypothesis was that the visual learning style effected students' learning interest. From the t-test results for H1, the significance value was smaller than  $0.05 \ (0.008 < 0.05)$ . Therefore, it was concluded that the visual learning style significantly effected students' learning interest.

The second hypothesis was that the auditory learning style effected students' learning interest. From the t-test results for H2, the significance value was smaller than 0.05~(0.005 < 0.05). Therefore, it was concluded that the auditory learning style significantly effected students' learning interest. The third hypothesis was that the kinesthetic learning style effected students' learning interest. From the t-test results for H3, the significance value was smaller than 0.05~(0.000 < 0.05). Therefore, it was concluded that the kinesthetic learning style significantly effected students' learning interest.

#### **Discussion**

# The Effect of Visual Learning Style on Students' Learning Interest at Palangka Raya Christian Junior High School

Based on the data analysis and hypothesis testing conducted in this research, it was found that the significance value of the visual learning style on students' learning interest at Palangka Raya Christian Junior High School was 0.008, which was lower than 0.05 (sig = 0.008 < 0.05). Therefore, the first hypothesis of this research was accepted. This meant that there was a direct positive effect of the visual learning style on students' learning interest at Palangka Raya Christian Junior High School. The research also indicated that the coefficient of determination for the visual learning style on students' learning interest was 0.329 or 32.9%. Therefore, the effect of visual learning style on students' learning interest at Palangka Raya Christian Junior High School was considerable, with an 32.4% effect

This research supports the theory that when someone is familiar with their learning style, they can take important steps to learn faster and easier, thus achieving the desired learning outcomes (Alhadabi et al., 2019; Putri et al., 2021). One of these learning styles is the visual learning style. Previous study explained that visual learners prefer to learn by seeing, observing, and analyzing materials such as diagrams, charts, graphs, and tables (Suparman, 2016). Visual Learners emphasize on their visual acuity. This means that concrete evidence must be shown first for them to understand. They rely on seeing or observing the evidence first before believing it. According to previous study individuals with a visual learning style can quickly grasp materials presented in written form, diagrams, graphs, and pictures (Kartikasari & Nuryasana, 2022). They find it easy to learn subjects that can be perceived visually.

In practice, the visual learning style was implemented at Palangka Raya Christian Junior High School, significantly supporting the students' learning process and improve their learning interest. This was evident from the availability of physical aids that supported the learning process, such as human body models, globes, and others. Additionally, teachers used teaching methods that incorporated diagrams, charts, and graphs in their lessons, which positively influenced the students' learning interest. The results of this research were consistent with previous studies which found a significant effect of the visual learning style on students' academic achievement, indicating an effect on their learning interest (Bire et al., 2014). Furthermore, this research aligned with the findings who also discovered a significant effect of the visual learning style on students' learning outcomes (Nurmayani et al., 2016).

# The Effect of the Auditory Learning Style on Students' Learning Interest at Palangka Raya Christian Junior High School

Based on the analysis of data and hypothesis testing conducted in this research, it was found that the significance value of the auditory learning style on students' learning interest at Palangka Raya Christian Junior High School was 0.005, which was lower than 0.05 (sig = 0.005 < 0.05). Therefore, it can be concluded that the second hypothesis in this research was accepted. This means that there was a direct positive effect of the auditory learning style on students' learning interest at Palangka Raya Christian Junior High School. The results of the research also showed a coefficient of determination of 0.364 or 36.4% for the auditory learning style's effect on students' learning interest. Therefore, the effect of auditory learning style on students' learning interest at Palangka Raya Christian Junior High School was considerable, with an 36.4% effect

This research supports the theory proposed that if someone is familiar with their learning style, they can take important steps to learn faster and easier, thus achieving the desired learning outcomes (Porter & Hernacki, 2016). One of these learning styles is the auditory learning style. Previous study explains that the auditory learning style involves maximizing the use of the sense of hearing in the process of capturing and absorbing information (Suparman, 2016). Students with an auditory learning style find it easier to comprehend the material by simply listening to the teacher during the learning process. The auditory learning style relies on hearing to understand and retain lesson material, and students with this style thoroughly enjoy listening to what others convey. This learning style heavily relies on hearing as the primary tool to absorb specific information; the child must hear it first. It means the child must listen first and then can remember and understand the received information.

In practice, the auditory learning style was implemented at Palangka Raya Christian Junior High School, which greatly supported the students' learning process and enhanced their learning interest. This could be observed in the teaching methods used by the teachers, who explained the school material during the learning process, thus influencing the students' learning interest. The results of this research also supported several previous studies which found a significant effect of the auditory learning style on students' academic achievement, indicating their learning interest (Bire et al., 2014; Winarno et al., 2022). Additionally, this study aligned with the research conducted which also found a significant effect of the auditory learning style on students' learning outcomes (Nurmayani et al., 2016).

# The Effect of Kinesthetic Learning Style on Students' Learning Interest at Palangka Raya Christian Junior High School

The results of data analysis and hypothesis testing conducted in this research revealed that the significance value of kinesthetic learning style on students' learning interest at Palangka Raya Christian Junior High School was 0.000. This value was lower than the significance level of 0.05, leading to the acceptance of the third hypothesis in this study. Thus, it can be concluded that there was a direct and positive influence of kinesthetic learning style on students' learning interest at Palangka Raya Christian Middle School. Furthermore, the research findings indicated that the coefficient of determination for the auditory learning style on students' learning interest was 0.843 or 84.3%. Therefore, the effect of kinesthetic learning style on students' learning interest at Palangka Raya Christian Junior High School was considerable, with an 84.3% effect. These results were consistent with the findings who explained that students tended to have a kinesthetic learning style and it significantly contributed to their learning interest (Sumarsono & Firanti, 2021).

This research supports the theory proposed by previous study that if someone is familiar with their learning style, they can take important steps to learn faster and easier,

resulting in the desired learning outcomes (Porter & Hernacki, 2016). One of these learning styles is the auditory learning style. According to previous study kinesthetic learning style is a learning style where students consistently use and utilize body movements in the learning process or in an effort to understand something (Suparman, 2016). Other study explained that individuals with a kinesthetic learning style easily learn materials presented in written form or through movements, but may find it difficult to learn from auditory or visual materials (Laakso et al., 2021). The kinesthetic learning style involves learning through physical activities and direct engagement, such as handling, moving, touching, and experiencing things firsthand. Students with a kinesthetic learning style prefer learning that involves a lot of movement (Leasa et al., 2020; Marzuki et al., 2019; Oktari et al., 2019). This learning style requires individuals to touch or handle something to remember the information.

In practice, the kinesthetic learning style was implemented at Palangka Raya Christian Junior High School, which greatly supported the students' learning process and enhanced their learning interest. This could be observed through the teaching methods used by the teachers, where practical spaces and laboratories were provided for the learning process. The availability of these facilities catered to the kinesthetic learning style (Anggrawan, 2019; Ritonga & Rahma, 2021). The results of this research also supported previous studies, such as the one conducted by previous study which found a significant effect of the kinesthetic learning style on students' academic achievements, indicating a positive effect on their learning interest (Bire et al., 2014). Additionally, this study aligned with the findings who also discovered a significant relationship between the kinesthetic learning style and students' academic performance (Nurmayani et al., 2016).

# 4. CONCLUSION

In conclusion, the research findings indicate that students' learning interest is significantly affected by their learning styles. Individuals who are familiar with their learning styles can take essential steps to learn faster and more easily, resulting in desired learning outcomes. Based on the hypothesis testing results, three learning styles in this study were found to affect the learning interest of students at Christian Junior High School, which was visual learning style, auditory learning style, and kinesthetics learning style. Among them, the kinesthetics learning style had the greatest effect on students' learning interest.

## 5. REFERENCES

- Alhadabi, A., Aldhafri, S., Alkharusi, H., Al-Harthy, I., Alrajhi, M., & AlBarashdi, H. (2019). Modelling parenting styles, moral intelligence, academic self-efficacy and learning motivation among adolescents in grades 7–11. *Sia Pacific Journal of Education*, 39(1), 133–153. https://doi.org/10.1080/02188791.2019.1575795.
- Anggrawan, A. (2019). Analisis Deskriptif Hasil Belajar Pembelajaran Tatap Muka dan Pembelajaran Online Menurut Gaya Belajar Mahasiswa. *MATRIK: Jurnal Manajemen, Teknik Informatika Dan Rekayasa Komputer*, 18(2), 339–346. https://doi.org/10.30812/matrik.v18i2.411.
- Arikunto. (2012). Prosedur Penelitian Suatu Pendekatan Praktik. Remaja Rosdakarya.
- Azmi, N. (2015). Model Pembelajaran Inside Outside Circle (Ioc)) Untuk Meningkatkan Hasil Belajar Siswa Dalam Proses Pembelajaran. *Al Ibtida: Jurnal Pendidikan Guru MI*, 2(1). https://doi.org/10.24235/al.ibtida.snj.v2i1.180.
- Baker, D., Unni, R., Kerr-Sims, S., & Marquis, G. (2020). Understanding factors that influence attitude and preference for hybrid course formats. *E-Journal of Business Education* & Scholarship of Teaching, 14(1), 174–188.

- https://files.eric.ed.gov/fulltext.
- Bire, A. L., Geradus, U., & Bire, J. (2014). Pengaruh Gaya Belajar Visual, Auditorial, Dan Kinestetik Terhadap Prestasi Belajar Siswa. *Jurnal Kependidikan*, 44(2). https://doi.org/10.21831/jk.v44i2.5307.
- Chetty, N. D. S., Handayani, L., Sahabudin, N. A., Ali, Z., Hamzah, N., Rahman, N. S. A., & Kasim, S. (2019). Learning styles and teaching styles determine students' academic performances. *International Journal of Evaluation and Research in Education*, 8(4), 610–615. https://doi.org/10.11591/ijere.v8i3. 20345.
- Commodari, E., & La Rosa, V. L. (2021). General academic anxiety and math anxiety in primary school. The impact of math anxiety on calculation skills. *Acta Psychologica*, 220, 103413. https://doi.org/10.1016/j.actpsy.2021.103413.
- Dewi, E. R., & Alam, A. A. (2020). Transformation Model for Character Education of Students. *Cypriot Journal of Educational Sciences*, 15(5), 1228–1237. https://doi.org/10.18844/CJES.V15I5.5155.
- Djaali. (2013). Psikologi Pendidikan. Bumi Askara.
- Ernawati, M. D. W., Asrial, A., Kurniawan, D. A., Pratama, W. A., & Perdana, R. (2021). Attitudes and Self-Efficacy: Perspectives on Science Subjects for Junior High School Students. *Jurnal Pendidikan Dan Pengajaran*, 54(3), 456–466. https://doi.org/10.23887/jpp.v54i3.36416.
- Hartanto, W. (2016). Penggunaan E-Learning sebagai Media Pembelajaran. *Jurnal Pendidikan Ekonomi*, 10(1), 1–18. http://jurnal.unej.ac.id/index.php/JPE/article/view/3438.
- Kartikasari, E., & Nuryasana, E. (2022). School literacy movement program in elementary school, Indonesia: Literature review. *Journal of Education and Learning (EduLearn)*, 16(3), 336–341. https://doi.org/10.11591/edulearn.v16i3.20383.
- Laakso, N. L., Korhonen, T. S., & Hakkarainen, K. P. J. (2021). Developing students' digital competences through collaborative game design. *Computers and Education*, 174(August), 104308. https://doi.org/10.1016/j.compedu.2021.104308.
- Lai, C.-S., Au, K.-M., & Low, C.-S. (2021). Beyond Conventional Classroom Learning: Linking Emotions and Self-Efficacy to Academic Achievement and Satisfaction with Online Learning during the COVID-19 Pandemic. *Journal of Education and E-Learning Research*, 8(4). https://doi.org/10.20448/journal.509.2021.84.367.374.
- Leasa, M., Corebima, A. D., & Batlolona, J. R. (2020). The effect of learning styles on the critical thinking skills in natural science learning of elementary school students. *Elementary Education Online*, 19(4), 2086–2097. https://doi.org/10.17051/ilkonline.2020.763449.
- Londa, A. H. (2018). Penggunaan Media Puzzle untuk Meningkatkan Hasil Belajar Peserta Didik pada Pembelajaran IPA. *Journal of Elementary School (JOES)*, *1*(2), 113–120. https://doi.org/10.31539/joes.v1i2.359.
- Manuaba, G. N. G., & Putra, D. K. N. S. (2021). Learning Video Based on Contextual Approach Science Content of Grade V Elementary School. *Indonesian Journal Of Educational Research and Review*, 4(2), 178. https://doi.org/10.23887/ijerr.v4i2.39432.
- Marzuki, Asih, E. C. M., & Wahyudin. (2019). Creative thinking ability based on learning styles reviewed from mathematical communication skills. *Journal of Physics: Conference Series*, 1315(1). https://doi.org/10.1088/1742-6596/1315/1/012066.
- Nurmayani, N. (Nurmayani), Syuaib, M. Z. (Muhammad), & 'Ardhuha, J. (Jannatin). (2016). Pengaruh Gaya Belajar VAK Pada Penerapan Model Pembelajaran Problem Based Learning Terhadap Hasil Belajar IPA Fisika Siswa SMP Negeri 2 Narmada Tahun Ajaran 2015/2016. *Jurnal Pendidikan Fisika Dan Teknologi*, 2(1), 13–21.

- https://doi.org/10.29303/JPFT.V2I1.283.
- Oktari, S. W., Atmaja, H. T., & Rc, A. R. (2019). The Interaction of Learning Model and Learning Style in Improving Students Learning Outcomes. *Journal of Primary Education*, 8(5), 206–216. https://journal.unnes.ac.id/sju/index.php/jpe/article/view/32148.
- Porter, B. De, & Hernacki, M. (2016). *Quantum Learning Membiasakan Belajar Nyaman dan Menyenangkan*. Kaifa Learning.
- Putri Ningrat, S., Tegeh, I. M., & Sumantri, M. (2018). Kontribusi Gaya Belajar Dan Motivasi Belajar Terhadap Hasil Belajar Bahasa Indonesia. *Jurnal Ilmiah Sekolah Dasar*, 2(3), 257. https://doi.org/10.23887/jisd.v2i3.16140
- Putri, R. N., Hidayah, N., & Mujidin. (2021). Penyesuaian Diri, Dukungan Sosial, dan Gaya Belajar Visual: Kontribusi terhadap Stres Akademik Siswa di Masa Pandemi. *Psyche 165 Journal*, *14*(4), 339–345. https://doi.org/10.35134/jpsy165.v14i4.136.
- Ramdan, A. Y., & Fauziah, P. Y. (2019). Peran orang tua dan guru dalam mengembangkan nilai-nilai karakter anak usia sekolah dasar. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, 9(2). https://doi.org/10.25273/pe.v9i2.4501.
- Rands, V. F., S., H., Gerrits, R., & Jensen, M. (2021). Implementing Guided Inquiry Active Learning in an Online Synchronous Classroom and its Impact on Test Question Performance. *HAPS Educator*, 25(2), 6–12. https://doi.org/10.21692/haps.2021.015.
- Ritonga, N. C., & Rahma, I. F. (2021). Analisis gaya belajar VAK pada pembelajaran daring terhadap minat belajar siswa. *Jurnal Analisa*, 7(1), 76–86. https://doi.org/10.15575/ja.v7i1.11878.
- Sriklaub, K., & Wongwanich, S. (2014). Learning activities aimed at promoting students' interest: Synthesis of master teachers' activity organizing methods via TV media. *Procedia - Social and Behavioral Sciences*, 116, 3375–3380. https://doi.org/10.1016/j.sbspro.2014.01.767.
- Sudimahayasa, N. (2015). Penerapan Model Pembelajaran Tgt Untuk Meningkatkan Hasil Belajar, Partisipasi, Dan Sikap Siswa. *Jurnal Pendidikan Dan Pengajaran*, 48(1-3 SE-Articles). https://doi.org/10.23887/jppundiksha.v48i1-3.6917.
- Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Sumarsono, S., & Firanti, A. (2021). Identification of Informatics Engineering Student Learning Styles in the Independent Learning Era. *Jurnal Pendidikan Dan Pengajaran*, 54(2), 306. https://doi.org/10.23887/jpp.v54i2.28672.
- Suparman. (2016). Gaya Mengajar yang Menyenangkan Siswa. Pinus Book Publisher.
- Takenaka, H., & Soga, M. (2019). Development of a support system for reviewing and learning historical events by active simulation using AR markers. *Procedia Computer Science*, *159*, 2355–2363. https://doi.org/10.1016/j.procs.2019.09.410.
- Taufan, M. Y. (2022). Professional Development of Teachers, Competencies, Educational Facilities and Infrastructure on Teacher Performance and Learning Achievement of High School Students in Makassar City. *Golden Ratio of Social Science and Education*, 2(1), 24–38. https://doi.org/10.52970/grsse.v2i1.168.
- Uddiniyah, N., & Silfia, E. (2019). An analysis of students' motivation in learning English at SMAN 8 Kota Jambi academic year 2018/2019. *Journal Of English Language Teaching*, *3*(2), 139–149. http://jelt.unbari.ac.id/index.php/jelt/article/view/42.
- Walet, J. (2011). Differentiating for Struggling Readers and Writers: Improving Motivation and Metacognition through Multisensory Methods & Explicit Strategy Instruction. *Journal of the American Academy of Special Education Professionals*, 83–91. https://eric.ed.gov/?id=EJ1137150.
- Winarno, A., Fedin, M. Y. A., & Salleh, N. H. M. (2022). the Effect of Technological

- Literacy, Learning Facility, and Family Environment on Students' Learning Motivation. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 7(7), 246. https://doi.org/10.17977/jptpp.v7i7.15404.
- Yeo, M. M. L. (2021). Social media and social networking applications for teaching and learning. *European Journal of Science and Mathematics Education*, 2(1), 53–62. https://doi.org/10.30935/scimath/9400.